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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/830,212	04/21/2004	Dae Sung Moon	2013P162	9028
8791 7590 08/14/2007 BLAKELY SOKOLOFF TAYLOR & ZAFMAN 1279 OAKMEAD PARKWAY SUNNYVALE, CA 94085-4040			EXAMINER LIEW, ALEX KOK SOON	
			ART UNIT 2624	PAPER NUMBER
			MAIL DATE 08/14/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/830,212	<b>Applicant(s)</b> MOON ET AL.	
	<b>Examiner</b> Alex Liew	<b>Art Unit</b> 2624	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 April 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4,7,8 and 11 is/are allowed.
- 6) ☒ Claim(s) 1-6,9,10 and 12-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

Claims 4, 7, 8 and 11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4 recites the limitation "a second reference plane" in lines 2 – 3. There is insufficient antecedent basis for this limitation in the claim. There is no "first reference plane" recited in claim 1.

Claim 7 recites the limitation "a third reference plane" in line 2. There is insufficient antecedent basis for this limitation in the claim. There is no "first reference plane" or "second reference plane" recited in claim 1.

Claim 8 recites the limitation "a fourth reference plane" in lines 2 – 3. There is insufficient antecedent basis for this limitation in the claim. There is no "first reference plane," "second reference plane" and "third reference plane" recited in claim 1.

With regards to claim 11, see the rationale for claim 8.

Claims 4, 7, 8 and 11 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

### **Allowable Claims**

Claims 1 – 6, 9, 10 and 12 – 19 are allowable.

With regards to claim 1, the examiner cannot find any applicable prior art and / or suggestions disclosing generating a first user table containing information regarding the first user's fingerprint based on *geometrical changes* of the other minutiae points which are obtained by the rotation, generating a second user table containing information regarding the second user's fingerprint based on *geometric changes* of the other minutiae points obtained by rotating the other minutiae points by an angle about the reference point and comparing the second user table with the first user table and selecting a similar candidate list of user table in combination with the rest of the limitations of claim 1.

With regards to claims 13 and 19, see the rationale for claim 1.

### **Relevant Art**

1. Hamid (US pat no 7,006,673) discloses a method of identifying a fingerprint using minutiae points of the fingerprint, the method comprising

enrolling first user's fingerprint, wherein enrolling a fingerprint of a first user in a first database by extracting  $n$  minutiae points from a fingerprint image of the first user (see figure 9 – the first user fingerprint image is read as the first image of  $N$  captured images), generating a first user table containing information regarding first user's fingerprint based on extracted  $n$  minutiae points (see table 2 on column 8 – the feature points on the fingerprint is encoded with a numerical designation in their respective zones shown in figure 6a), and storing the first user table in the first database (see figure 9 – 150 – after feature extraction of the fingerprints, the features are stored in a database, column 11 lines 37 – 41);

identifying a fingerprint of a second user by extracting  $m$  minutiae points from a fingerprint image of the second user (see figure 10 – 202), generating a second user features containing information regarding the second user's fingerprint based on minutiae points extracted from the second user's fingerprint (see figure 10 – 203) and comparing the second user table with the first user table (see figure 10 – the step were it determines whether there is a match or no match).

Hamid does not disclose selecting one of the  $n$  minutiae points as a reference point from first user's fingerprint follow by rotating the other minutiae points by a predetermined angle with respect to the reference point and selecting one of the  $m$  minutiae points as a reference point from first user's fingerprint follow by rotating the other minutiae points by a predetermined angle with respect to the reference point. Hamid also does not disclose generating a first user table containing information regarding the first user's fingerprint based on *geometrical changes* of the other minutiae

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points which are obtained by the rotation, generating a second user table containing information regarding the second user's fingerprint based on *geometric changes* of the other minutiae points obtained by rotating the other minutiae points by an angle about the reference point.

2. Eshera (US pat no 5,613,014) discloses selecting one of the n minutiae points as a reference point from first user's fingerprint follow by rotating the other minutiae points by a predetermined angle with respect to the reference point (see figure 5a – 5d). But Eshera does not disclose enrollment steps to generate tables, which is based on extracted minutiae points.

### **Conclusion**

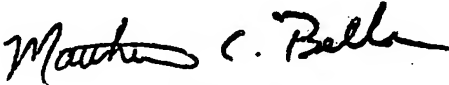
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alex Liew whose telephone number is (571)272-8623. The examiner can normally be reached on 9:30AM - 7:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on (571) 272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Alex Liew  
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8/6/07

  
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